

(See Instructions on Reverse)

1. PROJECT TITLE	2. INSTRUMENT TYPE <input type="checkbox"/> GRANT <input type="checkbox"/> COOPERATIVE AGREEMENT	
3. RECIPIENT (Name, address, zip code, area code and telephone no.)	4. INSTRUMENT NO.	5. AMENDMENT NO.
	6. BUDGET PERIOD FROM: THRU:	7. PROJECT PERIOD FROM: THRU:
8. RECIPIENT PROJECT DIRECTOR (Name and telephone no.)	10. TYPE OF AWARD <input type="checkbox"/> NEW <input type="checkbox"/> CONTINUATION <input type="checkbox"/> RENEWAL <input type="checkbox"/> REVISION <input type="checkbox"/> SUPPLEMENT	
9. RECIPIENT BUSINESS OFFICER (Name and telephone no.)		
11. DOE PROJECT OFFICER (Name, address, zip code, telephone no.)	12. ADMINISTERED FOR DOE BY (Name, address, zip code, telephone no.)	

<input type="checkbox"/> STATE GOV'T	<input type="checkbox"/> INDIAN TRIBAL GOV'T	<input type="checkbox"/> HOSPITAL	<input type="checkbox"/> FOR PROFIT ORGANIZATION	<input type="checkbox"/> INDIVIDUAL
<input type="checkbox"/> LOCAL GOV'T	<input type="checkbox"/> INSTITUTION OF HIGHER EDUCATION	<input type="checkbox"/> OTHER NONPROFIT ORGANIZATION	<input type="checkbox"/> C <input type="checkbox"/> P <input type="checkbox"/> SP	<input type="checkbox"/> OTHER (Specify)

14. ACCOUNTING AND APPROPRIATIONS DATA:				15. EMPLOYER I.D. NUMBER
a. Appropriation Symbol	b. B&R Number	c. FT/AFP/OC	d. CFA Number	

16. BUDGET AND FUNDING INFORMATION			
a. CURRENT BUDGET PERIOD INFORMATION		b. CUMULATIVE DOE OBLIGATIONS	
(1) DOE Funds Obligated This Action	\$ _____	(1) This Budget Period	\$ _____
(2) DOE Funds Authorized for Carry Over	\$ _____	<i>[Total of lines a.(1) and a.(3)]</i>	
(3) DOE Funds Previously Obligated in this Budget Period	\$ _____	(2) Prior Budget Periods	\$ _____
(4) DOE Share of Total Approved Budget	\$ _____	(3) Project Period to Date	\$ _____
(5) Recipient Share of Total Approved Budget	\$ _____	<i>[Total of lines b.(1) and b.(2)]</i>	
(6) Total Approved Budget	\$ _____		

17. TOTAL ESTIMATED COST OF PROJECT \$ _____
(This is the current estimated cost of the project. It is not a promise to award nor an authorization to expend funds in this amount.)

18. AWARD AGREEMENT TERMS AND CONDITIONS
This award/agreement consists of this form plus the following:

a. Special terms and conditions.

b. Applicable program regulations (*specify*) _____ (Date) _____.

c. DOE Assistance Regulations, 10 CFR Part-600, as amended.

d. Application/proposal dated _____, ☐ as submitted ☐ with changes as negotiated.

19. REMARKS

<p>20. EVIDENCE OF RECIPIENT ACCEPTANCE</p> <p>_____ <i>(Signature of Authorized Recipient Official)</i> <i>(Date)</i></p> <p>_____ <i>(Name)</i></p> <p>_____ <i>(Title)</i></p>	<p>21. AWARDED BY</p> <p>_____ <i>(Signature)</i> <i>(Date)</i></p> <p>_____ <i>(Name)</i></p> <p>_____ Contracting Officer <i>(Title)</i></p>
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SECTION II - SPECIAL TERMS AND CONDITIONS

2.1 CONSECUTIVE NUMBERING (JAN 1999)

Due to automated procedures employed in formulating this document, clauses and provisions within it may not always be continuously numbered.

2.2 PREVAILING REGULATIONS (NOV 1998)

As indicated on the face page, Block 18c, this Award is subject to the DOE Assistance Regulations of Title 10, Code of Federal Regulations, Part 600. This set of regulations may be found in most major libraries or on the World Wide Web at:

<http://www.pr.doe.gov/fahome.html>

2.3 ORDER OF PRECEDENCE (DEC 1999)

In the event of any inconsistency among the provisions of this agreement, the inconsistency shall be resolved by giving precedence as follows: (a) Applicable Public Laws; (b) the special terms and conditions or schedule of articles; (c) 10 CFR Part 600; and (d) other documents, exhibits and attachments.

APPLICABLE IF THE AWARD IS A COOPERATIVE AGREEMENT

2.4 SUBSTANTIAL INVOLVEMENT BETWEEN DOE AND THE RECIPIENT (JAN 1999)

There will be substantial involvement between the DOE and the Recipient during performance of this Cooperative Agreement.

[Specialist: Explicitly state the substantial involvement anticipated between DOE and the Recipient. The language should specifically describe the project activities, which have DOE collaboration, participation, or intervention. The following types of activities are generally viewed as substantial involvement:

- Involvement in either the technical or business management aspects of the project or both;
- Desire to have greater control over the budget;
- Providing extensive assistance or training to a "high risk" organization;
- Substantial involvement and contribution to technical aspects of the effort are necessary for its accomplishment;
- Project, as proposed, would not be possible without extensive DOE collaboration;
- Option to immediately halt an activity;
- Review and approval during the project period of one stage before work can begin on a subsequent stage in sharing of the responsibility for the direction of the project. (i.e. The DOE will participate in establishing and approving a work plan, which will identify essential and significant milestones necessary for completion of the project. This work plan will be used to determine whether or not to proceed with subsequent tasks of the Statement of Project Objectives.)]

THIS CLAUSE WILL BE INCLUDED IF THE AGREEMENT CONTAINS COST SHARING AND COSTS ARE TO BE SHARED ON A COST INCURRED BASIS.

2.5 COST SHARING (MAR 2001)

The total estimated cost for the work to be accomplished under this award is [\$]. The Recipient and the Government agree to share the allowable project costs, as costs are incurred, in accordance with the following ratios:

DOE: []%
Recipient: []%
Total: 100%

THIS CLAUSE WILL BE INCLUDED IF THE AGREEMENT CONTAINS COST SHARING AND THERE IS IN-KIND COST SHARING OR WHEN COSTS WILL BE SHARED ON AN ELEMENT BY ELEMENT BASIS.

2.6 COST SHARING (MAR 2001)

The total estimated cost for the work to be accomplished under this award is [\$]. The Recipient and the Government agree to share the allowable project costs under this award as follows:

DOE: []%
Recipient: []%
Total: 100%

The Recipient's anticipated source of cost-sharing is identified in Attachment C, Budget Pages of this award. When these costs are expended, they will be identified as the Recipient's contribution and provided as backup information to the SF270.

The respective cost-share percentages shall be achieved by the completion or termination date of this award. In the event the award is completed or terminated and the Recipient has not shared []% of the allowable costs, the Recipient will refund to the DOE an amount such that the Recipient's share ratio is []%.

APPLICABLE IF THE BUDGET PERIOD IS NOT FULLY FUNDED.

2.7 FUNDING (SEPT 2000)

This award is to be incrementally funded. The DOE has currently obligated \$[INSERT FUNDING AMOUNT] and anticipates, subject to the availability of additional funds, obligating the DOE balance of \$[INSERT REMAINING AMOUNT TO BE FUNDED]. The Recipient shall not be obligated to continue performance of this project beyond the amount set forth in Block 16(b)(3) of the DOE F 4600.1 and the DOE is under no commitment to provide additional funding to the Recipient beyond this amount.

APPLICABLE IF PREAWARD COSTS ARE AUTHORIZED BEYOND THE 90 DAYS ALLOWED BY 10 CFR 600.125.

2.8 ALLOWABLE PREAWARD COSTS (MAR 1999)

The Recipient is entitled to reimbursement of preaward costs in the amount not to exceed [] of DOE obligations. These costs are limited to work associated with performance of [], incurred during the period starting on [] through the effective start date of this award (Block 7, DOE F 4600.1).

APPLICABLE IF THE AWARD CONTAINS MORE THAN ONE BUDGET PERIOD AND CONTINUATION APPLICATIONS WILL BE REQUIRED.

2.9 CONTINUATION APPLICATION (DEC 1999)

Funding for each budget period within the approved project period shall be contingent on DOE approval of a continuation application submitted no later than 60 days prior to the end of the current budget period. The continuation application shall be submitted on the SF 424 in accordance with 10 CFR 600.26. Forms for submission of continuation applications can be found at <http://www.netl.doe.gov/business/forms/forms.html>.

ONE OR MORE OF THE FOLLOWING THREE CLAUSES WILL BE INCLUDED BASED UPON THE DETERMINATION AS THE PROPER METHOD OF PAYMENT.

2.10 METHOD OF PAYMENT - ADVANCE (APR 2001)

Payment to the Recipient will be made in advance by using the Department of Treasury Automated Standard Application for Payments System (ASAP), in accordance with 10 CFR 600.122(b).

The Recipient will request advances using the ASAP payment system and will request cash only as needed for immediate disbursements, will report cash disbursements in a timely manner, and will impose the same standards of timing and amount, including reporting requirements, on secondary recipients.

If DOE subsequently determines that the recipient's financial management system does not meet the required standards of 10 CFR 600.121, or the recipient has not maintained or demonstrated the willingness and ability to maintain written procedures that minimize the time elapsing between the transfer of funds and disbursement by the recipient, advance payments may be changed to payments by reimbursement.

The Recipient is required to maintain advances of federal funds in interest bearing accounts. Any interest income earned by the Recipient on federal funds must be remitted at least quarterly to the cognizant DOE office. However, up to \$250 of the interest earned per year may be retained by the Recipient to cover administrative expenses.

Funds advanced to the Recipient must be kept to a minimum amount necessary to meet the Recipient's cash flow needs. Cash needs shall be determined by the Recipient's cash outlay requirements and shall not be based on costs incurred. If funds are erroneously drawn in excess of the Recipient's immediate disbursement needs, the excess funds should be promptly refunded and reissued when needed. The only exception to this is when excess funds will be disbursed by the Recipient within seven calendar days or when the excess funds are less than \$10,000 and will be disbursed within thirty (30) calendar days.

2.11 METHOD OF PAYMENT - REIMBURSEMENT (APR 2001)

Payment to the Recipient shall be accomplished by reimbursement utilizing the Automated Clearing House (ACH), in accordance with 10 CFR 600.122(e).

The Recipient shall request reimbursements using the Standard Form SF 270, Request for Advance or Reimbursement, and shall complete Blocks 1-11 and 13. The Recipient shall submit the Form SF 270 in an original and two (2) copies no more frequently than monthly. This request will contain backup data supporting the request for payment. Electronic versions of the SF 270 can be found on the NETL website at: <http://www.netl.doe.gov/business/faapiaf/paaforms.html>.

The original is to be submitted to:

U. S. Department of Energy
Oak Ridge Financial Services
P. O. Box 4787
200 Administration Road
Oak Ridge, TN 37831

The two copies are to be submitted to:

[Insert: U. S. Department of Energy
National Energy Technology Laboratory
Commercial Payments Center
P. O. Box 10940, MS 921-143
Pittsburgh, PA 15236-0940

OR

U. S. Department of Energy
National Energy Technology Laboratory
Attn: Accounts Payable
P. O. Box 880
Morgantown, WV 26507-0880]

STATUS OF PAYMENTS

The Oak Ridge Financial Service Center (ORFSC) has a system via Internet, in which Recipients can request information about payments by invoice, by award number, and/or by paid date. The system is called Vendor Inquiry Payment Electronic Reporting System (VIPERS) and is available to Recipients at the following website: <http://finweb.oro.doe.gov/vipers.htm>. Recipients must have a federal tax identification number (TIN) and then obtain a personal identification number (PIN) to access the system.

2.12 NOTICE OF INVOICE PROCESSING BY SUPPORT CONTRACTOR (DEC 1999)

A support service contractor performs the function of processing of all invoices submitted to the National Energy Technology Laboratory, against its awards. Therefore, this contractor has access to your business confidential cost/rate information. A special provision in this contractor's award requires the confidential treatment by all contractor employees of any and all business confidential information of other contractors and financial assistance recipients to which they have access.

2.13 ACKNOWLEDGMENT OF FEDERAL FUNDING (NOV 1998)

When issuing statements, press releases, requests for proposals, bid solicitations, and other documents describing this project, the Recipient shall clearly state (1) the percentage of the total cost of the project which will be financed with Federal money, and (2) the dollar amount of Federal funds for the project.

2.14 REAL PROPERTY - NONE (JAN 1999)

No real property may be acquired under this award.

APPLICABLE IF PROPERTY IS TO BE ACQUIRED UNDER THE AWARD.

2.15 RECIPIENT ACQUIRED PROPERTY (MAY 1999)

Reference Attachment [] for a listing of property authorized for acquisition under this award. Property acquired by the Recipient under this award shall be managed in accordance with 10 CFR 600.130 to 10 CFR 600.137, and reported as prescribed in Attachment B, Federal Assistance Reporting Checklist.

APPLICABLE IF NO PROPERTY IS TO BE ACQUIRED.

2.16 RECIPIENT ACQUIRED PROPERTY - NONE (JAN 1999)

No Recipient acquired property is anticipated under this award.

APPLICABLE IF THE GOVERNMENT WILL FURNISH PROPERTY.

2.17 FEDERALLY OWNED PROPERTY (GOVERNMENT-FURNISHED) (JAN 1999)

Reference Attachment [] for a listing of federally-owned property. Federally-owned property shall be managed in accordance with 10 CFR 600.133(a), and reported as prescribed in Attachment B, Federal Assistance Reporting Checklist.

APPLICABLE IF THE GOVERNMENT WILL NOT FURNISH PROPERTY

2.18 FEDERALLY OWNED PROPERTY (GOVERNMENT-FURNISHED) - NONE (JAN 1999)

No Government-furnished property is provided under this award.

2.19 KEY PERSONNEL (JUNE 2000)

Recipient personnel considered to be essential and key to the work being performed hereunder are specified [INSERT THE WORDS "in Block 8 on the Face Page of this award." OR IN THE CASE WHERE THERE ARE SEVERAL KEY PERSONNEL NAMES INSERT THE WORD "below" AND LIST THE PERSONS. IT IS NOT NECESSARY TO LIST THE PERSONS IF ONLY ONE PERSON IS IDENTIFIED AND THAT NAME IS THE SAME AS THE ONE ON THE FACE PAGE OF THE AWARD.]

NAME	TITLE	TELEPHONE
[]	[]	[]

The personnel specified in this clause are considered to be essential to the project. Before diverting any key personnel to work outside the scope of this award, the Recipient shall notify the Contracting Officer reasonably in advance and shall submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on the project. No key personnel may be substituted without the Contracting Officer's approval. Such approval shall be obtained in advance of the substitution, except that the Contracting Officer may ratify a substitution which, because of exigent circumstances, was made before the Recipient could request and/or obtain the Contracting Officer's approval.

2.20 PAPERWORK REDUCTION (NOV 1998)

The award is subject to the requirements of the Paperwork Reduction Act of 1980 as implemented by the Office of Management and Budget rules, "Controlling Paperwork Burdens on the Public," published at 5 CFR 1320. These requirements apply if the Recipient will collect information from ten (10) or more respondents at the specific request of DOE, or if the award requires specific DOE approval of the information collection or the collection procedures.

The Recipient shall submit any proposed sponsored information collection to the person identified on the DOE F 4600.1 (Award Face Page, Block 12). The proposal shall be submitted at least 120 days prior to the intended date of information collection. DOE will seek the requisite approval from the Office of Management and Budget (OMB) and will promptly notify the Recipient of the disposition of the request.

2.21 PUBLIC ACCESS TO INFORMATION (APR 2000)

The Freedom of Information Act, as amended, and the DOE implementing regulations (10 CFR 1004) require DOE to release certain documents and records regarding awards to any person who provides a written request. The intended use of the information will not be a criterion for release.

2.22 NATIONAL SECURITY (NOV 1998)

It is not expected that activities under the award will generate or otherwise involve classified information (i.e., Restricted Data, Formerly Restricted Data, National Security Information).

However, if in the opinion of the Recipient or DOE such involvement becomes expected prior to the closeout of the award, the Recipient or DOE shall notify the other in writing immediately. If the Recipient believes any information developed or acquired may be classifiable, the Recipient shall not provide the potentially classifiable information to anyone, including the DOE officials with whom the Recipient normally communicates, except the Director of Classification, and shall protect such information as if it were classified until notified by DOE that a determination has been made that it does not require such handling. Correspondence which includes the specific information in question shall be sent by registered mail to U. S. Department of Energy, Attn.: Executive Assistant for Defense Programs, DP-4, 4A-019/FORS, 1000 Independence Avenue, Washington, D.C. 20585. If the information is determined to be classified, the Recipient may wish to discontinue the project, in which case the Recipient and DOE shall terminate the award by mutual agreement. If the award is to be terminated, all materials deemed by DOE to be classified shall be forwarded to DOE, in a manner specified by DOE, for proper disposition. If the Recipient and DOE wish to continue the award, even though classified information is involved, the Recipient shall be required to obtain both personnel and facility security clearances through the Office of Safeguards and Security for Headquarters awarded awards obtained through DOE field organizations. Costs associated with handling and protecting any such classified information shall be negotiated at the time the determination to proceed is made.

APPLICABLE IF THE AWARD IS TO BE FUNDED FROM THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT

2.23 COMPLIANCE WITH BUY AMERICAN ACT (JAN 2001)

In accepting this award, the Recipient agrees to comply with sections 2 through 4 of the Act of March 3, 1933 (41 U.S.C. 10a-10c, popularly known as the "Buy American Act"). The Recipient should review the provisions of the Act to ensure that expenditures made under this award are in accordance with it.

2.24 NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -- SENSE OF CONGRESS (JAN 2001)

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

APPLICABLE IF THE AWARD IS TO BE FUNDED FROM THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT

2.25 LOBBYING RESTRICTION (INTERIOR ACT, 2001) (JAN 2001)

The awardee agrees that none of the funds obligated on this award shall be made available for any activity or the publication or distribution of literature that in any way tends to promote public support or opposition to any legislative proposal on which Congressional action is not complete. This restriction is in addition to those prescribed elsewhere in statute and regulation.

A copy of the DOE "Lobbying Brochure" which provides a summary of the statutory and regulatory restrictions regarding lobbying activities for Federal contractors can be found at <http://www.pr.doe.gov/lobbying.html>.

APPLICABLE IF THE AWARD IS TO BE FUNDED FROM THE ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT

2.26 LOBBYING RESTRICTIONS (ENERGY & WATER APPROPRIATIONS, 2001) (JAN 2001)

The awardee agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

A copy of the DOE "Lobbying Brochure" which provides a summary of the statutory and regulatory restrictions regarding lobbying activities for Federal contractors can be found at <http://www.pr.doe.gov/lobbying.html>.

2.27 NOTICE REGARDING UNALLOWABLE COSTS AND LOBBYING ACTIVITIES (NOV 1998)

Recipients of financial assistance are cautioned to carefully review the allowable cost and other provisions applicable to expenditures under their particular award instruments. If financial assistance funds are spent for purposes or in amounts inconsistent with the allowable cost or any other provisions governing expenditures in an award instrument, the government may pursue a number of remedies against the Recipient, including in appropriate circumstances, recovery of such funds, termination of the award, suspension or debarment of the Recipient from future awards, and criminal prosecution for false statements.

Particular care should be taken by the Recipient to comply with the provisions prohibiting the expenditure of funds for lobbying and related activities. Financial assistance awards may be used to describe and promote the understanding of scientific and technical aspects of specific energy technologies, but not to encourage or support political activities such as the collection and dissemination of information related to potential, planned or pending legislation.

2.28 YEAR 2000 COMPLIANCE (NOV 1998)

Year 2000 compliant means, with respect to information technology, the information technology accurately processes date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

The Recipient assures, by acceptance of this award, that items delivered under this contract are year 2000 compliant.

2.29 REPORTING (NOV 1998)

Failure to comply with the reporting requirements contained in this award will be considered a material noncompliance with the terms of the award. Noncompliance may result in a withholding of future payments, suspension or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or of unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards by Federal agencies.

2.30 RESEARCH INVOLVING RECOMBINANT DNA MOLECULES (NOV 1998)

Any Recipient performing research involving recombinant DNA molecules and/or organisms and viruses containing recombinant DNA molecules agrees by acceptance of this award to comply with the National Institute of Health "Guidelines for Research Involving Recombinant DNA Molecules," (59 FR 34496, July 5, 1994 as amended by 59 FR 40170, 60 FR 20726, 61 FR 1482, 61 FR 10004, 62 FR 53335, 62 FR 56196, 62 FR 59032 and 63 FR 8052, "subject to change - call 301-496-9838 to obtain reference to a current version.")

APPLICABLE IF A CATEGORICAL EXCLUSION FROM NEPA IS NOT SIGNED PRIOR TO AWARD.

2.31 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) -- PRIOR APPROVALS (JAN 2001)

The National Environmental Policy Act of 1969 (NEPA) requires that all Federal agencies consider the impacts of their projects on the human environment. As part of the DOE's NEPA requirements, the Recipient shall be required to supply to the DOE certain environmental information. DOE funds may only be expended by the Recipient on [INSERT ACTIVITIES THAT CAN BE PERFORMED UNTIL THE NEPA DOCUMENT IS SIGNED, i.e., preliminary designs or drawings] activities, or in a manner consistent with 40 CFR 1506.1, until DOE notifies the Recipient that all NEPA requirements have been satisfied.

2.32 SAFETY & HEALTH AND ENVIRONMENTAL PROTECTION (JAN 1999)

The Recipient shall implement the DOE work in accordance with all applicable Federal, State, and local laws, including codes, ordinances, and regulations, covering safety, health, and environmental protection.

The Recipient agrees to include this clause in first-tier subcontracts and agrees to enforce the terms of this clause.

2.33 PERMITS AND LICENSES (AUG 1999)

Within sixty (60) days of award, the Recipient shall submit to the DOE Contracting Officer Representative (COR) a list of ES&H approvals that, in the Recipient's opinion, shall be required to complete the work under this award. The list shall include the topic of the approval being sought, the approving authority, and the expected submittal/approval schedule. The COR shall be notified as specific items are added or removed from the list and processed through their approval cycles.

The Recipient agrees to include this clause in first-tier subcontracts and agrees to enforce the terms of this clause.

SECTION III -INTELLECTUAL PROPERTY PROVISIONS

3.1 INTELLECTUAL PROPERTY PROVISIONS (JAN 1999)

The patent and technical data clauses included in this section apply to this award. As used in these applicable clauses, the term "Patent Counsel" refers to the following point of contact:

Intellectual Property Law Division
U.S. Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, IL 60439

In any of the FAR and DEAR clauses contained in this section, use of the term "Contract" means "Award" and "Contractor" means "Recipient."

The Recipient shall include intellectual property clauses in any contract awarded in accordance with requirements of the clauses in this section and of 10 CFR Part 600.27.

3.2 PUBLICATION OF RESULTS/ACKNOWLEDGMENT STATEMENT (JAN 1999)

Publication of the results of the award is encouraged subject to any applicable restrictions in 10 CFR 600.27 (Patent and Data Provisions). Publications, as well as reports prepared under this award shall contain the following acknowledgment statement:

"This (describe material) was prepared with the support of the U.S. Department of Energy, under Award No. DE-[]. However, any opinions, findings, conclusions, or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of the DOE".

3.3 RECIPIENT PRESS RELEASES (APR 1998)

The DOE policy and procedure on planned press releases requires that all Recipient press releases be reviewed and approved by DOE prior to issuance. Therefore, the Recipient shall, at least ten (10) days prior to the planned issue date, submit a draft copy to the Contracting Officer of any planned press releases related to work performed under this award. The Contracting Officer will then obtain necessary reviews and clearances and provide the Recipient with the results of such reviews prior to the planned issue date.

3.4 CONFIDENTIAL BUSINESS INFORMATION (DEC 1999)

Data represented to the Department as being confidential business information, and which does not include "Technical Data" as that term is defined in 52.227-14 Rights in Data General clause of this agreement, shall be submitted as an attachment to the required reports and will be withheld from disclosure outside NETL to the extent permitted by law, such attachment and each page therein is stamped with the following legend and no other:

CONFIDENTIAL BUSINESS INFORMATION

The Recipient considers the data furnished herein to contain confidential business information which is to be withheld from disclosure outside NETL to the extent permitted by law.

APPLICABLE IF THE AWARD IS SUBJECT TO THE ENERGY POLICY ACT.

3.5 OBLIGATIONS AS TO PROTECTED ENERGY POLICY ACT (EPACT) INFORMATION (FEB 2001)

- (a) The provisions of the Energy Policy Act of 1992, P.L. 102-486 (42 U.S.C. §13541(d)) specify the protection from public disclosure, for a period of up to five years from development, of information resulting from this award that would be trade secret or commercial or financial information that is privileged or confidential if the information had been obtained from a non-Federal party. This protection from public disclosure includes exemption from disclosure pursuant to 5 U.S.C. § 552(b)(The Freedom of Information Act).
- (b) The cover page of any document subject to and protectable under the provisions of P.L. 102-486 (42 U.S.C. §13541(d)), shall be marked with the following legend:

“PROTECTED EPACT INFORMATION

THIS DOCUMENT CONTAINS PROTECTED INFORMATION
WHICH WAS PRODUCED ON _____ [DATE]
UNDER AGREEMENT NO. DE-_____ AND IS
NOT TO BE FURTHER DISCLOSED FOR A PERIOD OF
_____ [NOT TO EXCEED 5 YEARS] FROM THE DATE
IT WAS PRODUCED EXCEPT AS EXPRESSLY PROVIDED
FOR IN THE SUBJECT AWARD.”

In addition, the Recipient will mark each page of the document with the words “PROTECTED EPACT INFORMATION.”

- (c) The Government agrees not to further disclose such protected information for a period of up to [NOT TO EXCEED 5 YEARS] from the date it was produced, except to be provided to other DOE facilities with the same protection in place, as necessary to perform this agreement or as otherwise mutually agreed to in advance.
- (d) The obligations in (c) above shall end when any such protected information becomes publicly known without fault of the Government, comes into the Government’s possession without breach by the Government of its obligations or is independently developed by someone who did not have access to the Protected Agreement Information.
- (e) Minimum technical data deliverable with unlimited rights . Notwithstanding any other provision of this award, the following technical data first produced under this award as a minimum, shall be delivered to the DOE with unlimited rights:

[COR TO SPECIFY WHAT DATA S/HE WANTS TO HAVE DELIVERED WITH UNLIMITED RIGHTS]

INCLUDED IN NON R&D AWARDS OVER \$100,000 WHERE BOTH COMPLETE PERFORMANCE AND DELIVERY ARE OUTSIDE THE U.S.

3.6 52.227-1 AUTHORIZATION AND CONSENT. (JUL 1995)

- (a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause,

if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

- (b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold); however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.

INCLUDED IN R&D AWARDS UNLESS BOTH COMPLETE PERFORMANCE AND DELIVERY ARE OUTSIDE THE US.

3.7 52.227-1 AUTHORIZATION AND CONSENT. (JUL 1995) ALTERNATE I (APR 1984)

- (a) The Government authorizes and consents to all use and manufacture of any invention described in and covered by a United States patent in the performance of this contract or any subcontract at any tier.
- (b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold); however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.

INCLUDED IN AWARDS OVER \$100,000 PERFORMED WITHIN THE U.S.

3.9 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT. (AUG 1996)

- (a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.
- (b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.
- (c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at FAR 2.101.

INCLUDED IN AWARDS WHERE THE CONTRACTING OFFICER BELIEVES ROYALTIES WILL HAVE TO BE PAID BY THE AWARDEE, SUBAWARDEE OR CONTRACTOR AT ANY TIER.

3.11 952.227-9 REFUND OF ROYALTIES. (MAR 1995)

- (a) The contract price includes certain amounts for royalties payable by the Contractor or subcontractors or both, which amounts have been reported to the Contracting Officer.
- (b) The term "royalties" as used in this clause refers to any cost or charges in the nature of royalties, license fees, patent or use of or for the rights in patents and patent applications in connection with performing this contract or any subcontract here-under. The term also includes any costs or charges associated with the access to, use of, or other

right pertaining to data that is represented to be proprietary and is related to the performance of this contract or the copyrighted.

- (c) The Contractor shall furnish to the Contracting Officer, before final payment under this contract, a statement of royalties paid or required to be paid in connection with performing this contract and subcontracts hereunder together with the reasons.
- (d) The Contractor will be compensated for royalties reported under paragraph (c) of this clause, only to the extent that such royalties were included in the contract price and are determined by the Contracting Officer to be properly chargeable to the Government and any royalties that are included in the contract price are not, in fact, paid by the Contractor or are determined by the Contracting Officer not to be properly chargeable to the government and allocable to the contract, the contract price shall be reduced. Repayment or credit to the Government shall be made as the Contracting Officer directs. The approval by DOE of any individual payments or royalties shall not prevent the Government from contesting at any time the enforceability, validity, scope of, or title to, any patent or the proprietary nature of data pursuant to which a royalty or other payment is to be or has been made.
- (e) If, at any time within 3 years after final payment under this contract, the Contractor for any reason is relieved in whole or in part from the payment of the royalties included in the contract price as adjusted pursuant to paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer of that fact and shall reimburse the Government in a corresponding amount.
- (f) The substance of this clause, including this paragraph (f), shall be including subcontract in which the amount of royalties reported during negotiation of the subcontract exceeds \$250.

APPLICABLE IF THE RECIPIENT IS A DOMESTIC SMALL BUSINESS FORM OR NON-PROFIT ORGANIZATION.

3.12 952.227-11 PATENT RIGHTS-RETENTION BY THE CONTRACTOR (SHORT FORM). (FEB 1995)

- (a) Definitions.
 - (1) "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321, et seq.).
 - (2) "Made" when used in relation to any invention means the conception of first actual reduction to practice of such invention.
 - (3) "Nonprofit organization" means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.
 - (4) "Practical application" means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.
 - (5) "Small business firm" means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

- (6) "Subject invention" means any invention of the contractor conceived or first actually reduced to practice in the performance of work under this contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of contract performance.
 - (7) "Agency licensing regulations" and "agency regulations concerning the licensing of Government-owned inventions" mean the Department of Energy patent licensing regulations at 10 CFR Part 781.
- (b) Allocation of principal rights. The Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.
- (c) Invention disclosure, election of title, and filing of patent application by Contractor.
- (1) The Contractor will disclose each subject invention to the Department of Energy (DOE) within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters. The disclosure to DOE shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the DOE, the Contractor will promptly notify that agency of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor.
 - (2) The Contractor will elect in writing whether or not to retain title to any such invention by notifying DOE within 2 years of disclosure to DOE. However, in any case where publication, on sale or public use has initiated the 1-year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by DOE to a date that is no more than 60 days prior to the end of the statutory period.
 - (3) The Contractor will file its initial patent application on a subject invention to which it elects to retain title within 1 year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor will file patent applications in additional countries or international patent offices within either 10 months of the corresponding initial patent application or 6 months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.
 - (4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (c)(1), (2), and (3) of this clause may, at the discretion of the agency, be granted.
- (d) Conditions when the Government may obtain title. The Contractor will convey to the Federal agency, upon written request, title to any subject invention--
- (1) If the Contractor fails to disclose or elect title to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain title; provided, that DOE may only request title within 60 days after learning of the failure of the Contractor to disclose or elect within the specified times.

- (2) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of the Federal agency, the Contractor shall continue to retain title in that country.
 - (3) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.
- (e) Minimum rights to Contractor and protection of the Contractor right to file.
- (1) The Contractor will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. The Contractor's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the Contractor is a party and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of the Federal agency, except when transferred to the successor of that part of the Contractor's business to which the invention pertains.
 - (2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR Part 404 and agency licensing regulations. This license will not be revoked in that field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.
 - (3) Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable regulations in 37 CFR Part 404 and agency regulations concerning the licensing of Government owned inventions, any decision concerning the revocation or modification of the license.
- (f) Contractor action to protect the Government's interest.
- (1) The Contractor agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title, and (ii) convey title to DOE when requested under paragraph (d) of this clause and to enable the government to obtain patent protection throughout the world in that subject invention.
 - (2) The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subject invention made under contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, on the importance

of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

- (3) The Contractor will notify DOE of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.
- (4) The Contractor agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by the United States Department of Energy. The Government has certain rights in the invention."

(g) Subcontracts.

- (1) The Contractor will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the Contractor in this clause, and the Contractor will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.
- (2) The contractor shall include in all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work the patent rights clause at 952.227-13.
- (3) In the case of subcontracts, at any tier, DOE, subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(h) Reporting on utilization of subject inventions. The Contractor agrees to submit, on request, periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received, by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by that agency in accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), DOE agrees it will not disclose such information to persons outside the Government without permission of the Contractor.

(i) Preference for United States industry. Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in rights. The Contractor agrees that, with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency to require the Contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that

are reasonable under the circumstances, and, if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that--

- (1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;
 - (2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;
 - (3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or
 - (4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.
- (k) Special provisions for contracts with nonprofit organizations. If the Contractor is a nonprofit organization, it agrees that--
- (1) Rights to a subject invention in the United States may not be assigned without the approval of the Federal agency, except where such assignment is made to an organization which has as one of its primary functions the management of inventions; provided, that such assignee will be subject to the same provisions as the Contractor;
 - (2) The Contractor will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when DOE deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;
 - (3) The balance of any royalties or income earned by the Contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions will be utilized for the support of scientific research or education; and
 - (4) It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms, and that it will give a preference to a small business firm when licensing a subject invention if the Contractor determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the contractor. However, the Contractor agrees that the Secretary of Commerce may review the Contractor's licensing program and decisions regarding small business applicants, and the Contractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when that Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of this subparagraph (k)(4).
- (l) Communications.
- (1) The contractor shall direct any notification, disclosure, or request to DOE provided for in this clause to the DOE patent counsel assisting the DOE contracting activity, with a copy of the communication to the Contracting Officer.

- (2) Each exercise of discretion or decision provided for in this clause, except subparagraph (k)(4), is reserved for the DOE Patent Counsel and is not a claim or dispute and is not subject to the Contract Disputes Act of 1978.
- (3) Upon request of the DOE Patent Counsel or the contracting officer, the contractor shall provide any or all of the following:
 - (i) a copy of the patent application, filing date, serial number and title, patent number, and issue date for any subject invention in any country in which the contractor has applied for a patent;
 - (ii) a report, not more often than annually, summarizing all subject inventions which were disclosed to DOE individually during the reporting period specified; or
 - (iii) a report, prior to closeout of the contract, listing all subject inventions or stating that there were none.

APPLICABLE IF THE RECIPIENT IS A LARGE BUSINESS OR OTHER ORGANIZATION OTHER THAN A DOMESTIC SMALL BUSINESS FIRM OR NON-PROFIT ORGANIZATION.

3.13 952.227-13 PATENT RIGHTS-ACQUISITION BY THE GOVERNMENT. (SEP 1997)

(a) Definitions.

"Invention", as used in this clause, means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code or any novel variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321, et seq.).

"Practical application", as used in this clause, means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

"Subject invention", as used in this clause, means any invention of the Contractor conceived or first actually reduced to practice in the course of or under this contract.

"Patent Counsel", as used in this clause, means the Department of Energy Patent Counsel assisting the procuring activity.

"DOE patent waiver regulations", as used in this clause, means the Department of Energy patent waiver regulations at 41 CFR 9-9.109- 6 or successor regulations. See 10 CFR part 784.

"Agency licensing regulations" and "applicable agency licensing regulations", as used in this clause, mean the Department of Energy patent licensing regulations at 10 CFR Part 781.

(b) Allocations of principal rights.

- (1) Assignment to the Government. The Contractor agrees to assign to the Government the entire right, title, and interest throughout the world in and to each subject invention, except to the extent that rights are retained by the Contractor under subparagraph (b)(2) and paragraph (d) of this clause.

- (2) Greater rights determinations.
 - (i) The contractor, or an employee-inventor after consultation with the Contractor, may request greater rights than the nonexclusive license and the foreign patent rights provided in paragraph (d) of this clause on identified inventions in accordance with the DOE patent waiver regulations. A request for a determination of whether the Contractor or the employee-inventor is entitled to acquire such greater rights must be submitted to the Patent Counsel with a copy to the Contracting Officer at the time of the first disclosure of the invention pursuant to subparagraph (e)(2) of this clause, or not later than 8 months thereafter, unless a longer period is authorized in writing by the Contracting Officer for good cause shown in writing by the Contractor. Each determination of greater rights under this contract shall be subject to paragraph (c) of this clause, unless otherwise provided in the greater rights determination, and to the reservations and conditions deemed to be appropriate by the Secretary of Energy or designee.
 - (ii) Within two (2) months after the filing of a patent application, the Contractor shall provide the filing date, serial number and title, a copy of the patent application (including an English-language version if filed in a language other than English), and, promptly upon issuance of a patent, provide the patent number and issue date for any subject invention in any country for which the Contractor has been granted title or the right to file and prosecute on behalf of the United States by the Department of Energy.
 - (iii) Not less than thirty (30) days before the expiration of the response period for any action required by the Patent and Trademark Office, notify the Patent Counsel of any decision not to continue prosecution of the application.
 - (iv) Upon request, the Contractor shall furnish the Government an irrevocable power to inspect and make copies of the patent application file.
- (c) Minimum rights acquired by the Government.
 - (1) With respect to each subject invention to which the Department of Energy grants the Contractor principal or exclusive rights, the Contractor agrees as follows:
 - (i) The Contractor hereby grants to the Government a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced each subject invention throughout the world by or on behalf of the Government of the United States (including any Government agency).
 - (ii) The Contractor agrees that with respect to any subject invention in which DOE has granted it title, DOE has the right in accordance with the procedures in the DOE patent waiver regulations (10 CFR part 784) to require the Contractor, an assignee, or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if it determines that--
 - (A) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;
 - (B) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

- (C) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or
 - (D) Such action is necessary because the agreement required by paragraph (i) of this clause has neither been obtained nor waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.
 - (iii) The Contractor agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceedings undertaken by that agency in accordance with subparagraph (c)(1)(ii) of this clause. To the extent data or information supplied under this section is considered by the Contractor, its licensee, or assignee to be privileged and confidential and is so marked, the Department of Energy agrees that, to the extent permitted by law, it will not disclose such information to persons outside the Government.
 - (iv) The Contractor agrees, when licensing a subject invention, to arrange to avoid royalty charges on acquisitions involving Government funds, including funds derived through a Military Assistance Program of the Government or otherwise derived through the Government, to refund any amounts received as royalty charges on a subject invention in acquisitions for, or on behalf of, the Government, and to provide for such refund in any instrument transferring rights in the invention to any party.
 - (v) The Contractor agrees to provide for the Government's paid-up license pursuant to subparagraph (c)(1)(i) of this clause in any instrument transferring rights in a subject invention and to provide for the granting of licenses as required by subparagraph (c)(1)(ii) of this clause, and for the reporting of utilization information as required by subparagraph (c)(1)(iii) of this clause, whenever the instrument transfers principal or exclusive rights in a subject invention. (2) Nothing contained in this paragraph (c) shall be deemed to grant to the Government any rights with respect to any invention other than a subject invention.
- (d) Minimum rights to the Contractor.
- (1) The Contractor is hereby granted a revocable, nonexclusive, royalty-free license in each patent application filed in any country on a subject invention and any resulting patent in which the Government obtains title, unless the Contractor fails to disclose the subject invention within the times specified in subparagraph (e)(2) of this clause. The Contractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a part and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Contractor's business to which the invention pertains.
 - (2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions in 37 CFR Part 404 and agency licensing regulations. This license will not be revoked in that field of use or the geographical areas in which the

Contractor has achieved practical applications and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

- (3) Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable agency licensing regulations and 37 CFR Part 404 concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.
- (4) The Contractor may request the right to acquire patent rights to a subject invention in any foreign country where the Government has elected not to secure such rights, subject to the conditions in subparagraphs (d)(4)(i) through (d)(4)(vii) of this clause. Such request must be made in writing to the Patent Counsel as part of the disclosure required by subparagraph (e)(2) of this clause, with a copy to the DOE Contracting Officer. DOE approval, if given, will be based on a determination that this would best serve the national interest.
 - (i) The recipient of such rights, when specifically requested by DOE, and three years after issuance of a foreign patent disclosing the subject invention, shall furnish DOE a report stating:
 - (A) The commercial use that is being made, or is intended to be made, of said invention, and
 - (B) The steps taken to bring the invention to the point of practical application or to make the invention available for licensing.
 - (ii) The Government shall retain at least an irrevocable, nonexclusive, paid-up license to make, use, and sell the invention throughout the world by or on behalf of the Government (including any Government agency) and States and domestic municipal governments, unless the Secretary of Energy or designee determines that it would not be in the public interest to acquire the license for the States and domestic municipal governments.
 - (iii) If noted elsewhere in this contract as a condition of the grant of an advance waiver of the Government's title to inventions under this contract, or, if no advance waiver was granted but a waiver of the Government's title to an identified invention is granted pursuant to subparagraph (b)(2) of this clause upon a determination by the Secretary of Energy that it is in the Government's best interest, this license shall include the right of the Government to sublicense foreign governments pursuant to any existing or future treaty or agreement with such foreign governments.
 - (iv) Subject to the rights granted in subparagraphs (d)(1), (2), and (3) of this clause, the Secretary of Energy or designee shall have the right to terminate the foreign patent rights granted in this subparagraph (d)(4) in whole or in part unless the recipient of such rights demonstrates to the satisfaction of the Secretary of Energy or designee that effective steps necessary to accomplish substantial utilization of the invention have been taken or within a reasonable time will be taken.

- (v) Subject to the rights granted in subparagraphs (d)(1), (2), and (3) of this clause, the Secretary of Energy or designee shall have the right, commencing four years after foreign patent rights are accorded under this subparagraph (d)(4), to require the granting of a nonexclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances, and in appropriate circumstances to terminate said foreign patent rights in whole or in part, following a hearing upon notice thereof to the public, upon a petition by an interested person justifying such hearing:
 - (A) If the Secretary of Energy or designee determines, upon review of such material as he deems relevant, and after the recipient of such rights or other interested person has had the opportunity to provide such relevant and material information as the Secretary or designee may require, that such foreign patent rights have tended substantially to lessen competition or to result in undue market concentration in any section of the United States in any line of commerce to which the technology relates; or
 - (B) Unless the recipient of such rights demonstrates to the satisfaction of the Secretary of Energy or designee at such hearing that the recipient has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.
 - (vi) If the contractor is to file a foreign patent application on a subject invention, the Government agrees, upon written request, to use its best efforts to withhold publication of such invention disclosures for such period of time as specified by Patent Counsel, but in no event shall the Government or its employees be liable for any publication thereof.
 - (vii) Subject to the license specified in subparagraphs (d)(1), (2), and (3) of this clause, the contractor or inventor agrees to convey to the Government, upon request, the entire right, title, and interest in any foreign country in which the contractor or inventor fails to have a patent application filed in a timely manner or decides not to continue prosecution or to pay any maintenance fees covering the invention. To avoid forfeiture of the patent application or patent, the contractor or inventor shall, not less than 60 days before the expiration period for any action required by any patent office, notify the Patent Counsel of such failure or decision, and deliver to the Patent Counsel, the executed instruments necessary for the conveyance specified in this paragraph.
- (e) Invention identification, disclosures, and reports.
- (1) The Contractor shall establish and maintain active and effective procedures to assure that subject inventions are promptly identified and disclosed to Contractor personnel responsible for patent matters within 6 months of conception and/or first actual reduction to practice, whichever occurs first in the performance of work under this contract. These procedures shall include the maintenance of laboratory notebooks or equivalent records and other records as are reasonably necessary to document the conception and/or the first actual reduction to practice of subject inventions, and records that show that the procedures for identifying and disclosing the inventions are followed. Upon request, the Contractor shall furnish the Contracting Officer a description of such procedures for evaluation and for determination as to their effectiveness.
 - (2) The Contractor shall disclose each subject invention to the DOE Patent Counsel with a copy to the Contracting Officer within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters or, if earlier, within 6 months after the Contractor becomes aware that a subject invention has been made, but in any event before any on sale, public use, or publication of such invention known to the Contractor. The disclosure to DOE shall be in the form of a written report and

shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological, or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale, or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to DOE, the Contractor shall promptly notify Patent Counsel of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor. The report should also include any request for a greater rights determination in accordance with subparagraph (b)(2) of this clause. When an invention is disclosed to DOE under this paragraph, it shall be deemed to have been made in the manner specified in Sections (a)(1) and (a)(2) of 42 U.S.C. 5908, unless the Contractor contends in writing at the time the invention is disclosed that it was not so made.

- (3) The Contractor shall furnish the Contracting Officer the following:
 - (i) Interim reports every 12 months (or such longer period as may be specified by the Contracting Officer) from the date of the contract, listing all subject inventions during that period, and including a statement that all subject inventions have been disclosed (or that there are not such inventions), and that such disclosure has been made in accordance with the procedures required by paragraph (e)(1) of this clause.
 - (ii) A final report, within 3 months after completion of the contracted work listing all subject inventions or containing a statement that there were no such inventions, and listing all subcontracts at any tier containing a patent rights clause or containing a statement that there were no such subcontracts.
 - (4) The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subject invention made under contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (e)(2) of this clause.
 - (5) The Contractor agrees, subject to FAR 27.302(j), that the Government may duplicate and disclose subject invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause.
- (f) Examination of records relating to inventions.
- (1) The Contracting Officer or any authorized representative shall, until 3 years after final payment under this contract, have the right to examine any books (including laboratory notebooks), records, and documents of the Contractor relating to the conception or first actual reduction to practice of inventions in the same field of technology as the work under this contract to determine whether--
 - (i) Any such inventions are subject inventions;
 - (ii) The Contractor has established and maintains the procedures required by subparagraphs (e)(1) and (4) of this clause;
 - (iii) The Contractor and its inventors have complied with the procedures.

- (2) If the Contracting Officer learns of an unreported Contractor invention which the Contracting Officer believes may be a subject invention, the Contractor may be required to disclose the invention to DOE for a determination of ownership rights.
 - (3) Any examination of records under this paragraph will be subject to appropriate conditions to protect the confidentiality of the information involved.
- (g) Withholding of payment (NOTE: This paragraph does not apply to subcontracts).
- (1) Any time before final payment under this contract, the Contracting Officer may, in the Government's interest, withhold payment until a reserve not exceeding \$50,000 or 5 percent of the amount of this contract, whichever is less, shall have been set aside if, in the Contracting Officer's opinion, the Contractor fails to--
 - (i) Convey to the Government, using a DOE-approved form, the title and/or rights of the Government in each subject invention as required by this clause.
 - (ii) Establish, maintain, and follow effective procedures for identifying and disclosing subject inventions pursuant to subparagraph (e)(1) of this clause;
 - (iii) Disclose any subject invention pursuant to subparagraph (e)(2) of this clause;
 - (iv) Deliver acceptable interim reports pursuant to subparagraph (e)(3)(i) of this clause; or
 - (v) Provide the information regarding subcontracts pursuant to subparagraph (h)(4) of this clause. (2) Such reserve or balance shall be withheld until the Contracting Officer has determined that the Contractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause. (3) Final payment under this contract shall not be made before the Contractor delivers to the Contracting Officer all disclosures of subject inventions required by subparagraph (e)(2) of this clause, and acceptable final report pursuant to subparagraph (e)(3)(ii) of this clause, and the Patent Counsel has issued a patent clearance certification to the Contracting Officer.
 - (4) The Contracting Officer may decrease or increase the sums withheld up to the maximum authorized above. No amount shall be withheld under this paragraph while the amount specified by this paragraph is being withheld under other provisions of the contract. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government rights.
- (h) Subcontracts.
- (1) The contractor shall include the clause at 48 CFR 952.227-11 (suitably modified to identify the parties) in all subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work to be performed by a small business firm or domestic nonprofit organization, except where the work of the subcontract is subject to an Exceptional Circumstances Determination by DOE. In all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work, the contractor shall include this clause (suitably modified to identify the parties). The contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

- (2) In the event of a refusal by a prospective subcontractor to accept such a clause the Contractor--
 - (i) Shall promptly submit a written notice to the Contracting Officer setting forth the subcontractor's reasons for such refusal and other pertinent information that may expedite disposition of the matter; and
 - (ii) Shall not proceed with such subcontract without the written authorization of the Contracting Officer.
- (3) In the case of subcontracts at any tier, DOE, the subcontractor, and Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to those matters covered by this clause.
- (4) The Contractor shall promptly notify the Contracting Officer in writing upon the award of any subcontract at any tier containing a patent rights clause by identifying the subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Contracting Officer, the Contractor shall furnish a copy of such subcontract, and, no more frequently than annually, a listing of the subcontracts that have been awarded.
- (5) The contractor shall identify all subject inventions of the subcontractor of which it acquires knowledge in the performance of this contract and shall notify the Patent Counsel, with a copy to the contracting officer, promptly upon identification of the inventions.
 - (i) Preference United States industry. Unless provided otherwise, no Contractor that receives title to any subject invention and no assignee of any such Contractor shall grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement may be waived by the Government upon a showing by the Contractor or assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.
- (j) Atomic energy.
 - (1) No claim for pecuniary award of compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted with respect to any invention or discovery made or conceived in the course of or under this contract.
 - (2) Except as otherwise authorized in writing by the Contracting Officer, the Contractor will obtain patent agreements to effectuate the provisions of subparagraph (e)(1) of this clause from all persons who perform any part of the work under this contract, except nontechnical personnel, such as clerical employees and manual laborers.
- (k) Background Patents.
 - (1) Background Patent means a domestic patent covering an invention or discovery which is not a subject invention and which is owned or controlled by the Contractor at any time through the completion of this contract:
 - (i) Which the contractor, but not the Government, has the right to license to others without obligation to pay royalties thereon, and

- (ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture, or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.
- (2) The Contractor agrees to and does hereby grant to the Government a royalty-free, nonexclusive license under any background patent for purposes of practicing a subject of this contract by or for the Government in research, development, and demonstration work only.
- (3) The Contractor also agrees that upon written application by DOE, it will grant to responsible parties, for purposes of practicing a subject of this contract, nonexclusive licenses under any background patent on terms that are reasonable under the circumstances. If, however, the Contractor believes that exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to DOE for DOE approval of such licensing by the Contractor.
- (4) Notwithstanding subparagraph (k)(3) of this clause, the contractor shall not be obligated to license any background patent if the Contractor demonstrates to the satisfaction of the Secretary of Energy or designee that:
 - (i) a competitive alternative to the subject matter covered by said background patent is commercially available or readily introducible from one or more other sources; or
 - (ii) the Contractor or its licensees are supplying the subject matter covered by said background patent in sufficient quantity and at reasonable prices to satisfy market needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter. 1) Publication. It is recognized that during the course of the work under this contract, the Contractor or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the Contractor, patent approval for release of publication shall be secured from Patent Counsel prior to any such release or publication.
- (m) Forfeiture of rights in unreported subject inventions.
 - (1) The Contractor shall forfeit and assign to the Government, at the request of the Secretary of Energy or designee, all rights in any subject invention which the Contractor fails to report to Patent Counsel within six months after the time the Contractor:
 - (i) Files or causes to be filed a United States or foreign patent application thereon; or
 - (ii) Submits the final report required by subparagraph (e)(2)(ii) of this clause, whichever is later.
 - (2) However, the Contractor shall not forfeit rights in a subject invention if, within the time specified in subparagraph (m)(1) of this clause, the Contractor:
 - (i) Prepares a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the decision to Patent Counsel, with a copy to the Contracting Officer; or

- (ii) Contending that the invention is not a subject invention, the Contractor nevertheless discloses the invention and all facts pertinent to this contention to the Patent Counsel, with a copy to the Contracting Officer; or
 - (iii) Establishes that the failure to disclose did not result from the Contractor's fault or negligence.
- (3) Pending written assignment of the patent application and patents on a subject invention determined by the Secretary of Energy or designee to be forfeited (such determination to be a final decision under the Disputes clause of this contract), the Contractor shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph (m) shall be in addition to and shall not supersede other rights and remedies which the Government may have with respect to subject inventions.

3.14 FAR 52.227-14 RIGHTS IN DATA -GENERAL. (JUN 1987) WITH ALTERNATE V (JUN 1987) AS AMENDED BY DEAR 927.409 (JAN 1999)

(a) Definitions.

- (1) "Computer databases," as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.
- (2) "Computer software," as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the computer program to be produced, created, or compiled. The term does not include computer data bases.
- (3) "Data," as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. For the purposes of this clause, the term does not include data incidental to the administration of this contract, such as financial, administrative, cost and pricing, or management information.
- (4) "Form, fit, and function data," as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.
- (5) "Limited rights data," as used in this clause, means data, other than computer software, developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. The Government's rights to use, duplicate, or disclose limited rights data are as set forth in the Limited Rights Notice of subparagraph (g)(2) of this section if included in this clause.
- (6) "Restricted computer software," as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of any such computer software. The Government's rights to use, duplicate, or disclose restricted computer software are as set forth in the Restricted Rights Notice of subparagraph (g)(3) of this section if included in this clause.

- (7) "Technical data," as used in this clause, means recorded data, regardless of form or characteristic, that are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.
 - (8) "Unlimited rights," as used in this clause, means the rights of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, including by electronic means, and perform publicly and display publicly, in any manner, including by electronic means, and for any purpose whatsoever, and to have or permit others to do so.
- (b) Allocation of rights.
- (1) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in -
 - (i) Data first produced in the performance of this contract;
 - (ii) Form, fit, and function data delivered under this contract;
 - (iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and
 - (iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.
 - (2) The Contractor shall have the right to -
 - (i) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;
 - (ii) Protect from unauthorized disclosure and use those data which are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause;
 - (iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and
 - (iv) Establish claim to copyright subsisting in data first produced in the performance of this contract to the extent provided in subparagraph (c)(1) of this clause.
- (c) Copyright -
- (1) Data first produced in the performance of this contract. Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright subsisting in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to establish claim to copyright subsisting in all other data first produced in the performance of this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government, as well as when the data are published or

deposited for registration as a published work in the U.S. Copyright Office. For data other than computer software the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting in its behalf, a paid-up nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly by or on behalf of the Government.

- (2) Data not first produced in the performance of this contract. The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract and which contains the copyright notice of 17 U.S.C. 401 or 402, unless the Contractor identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; provided, however, that if such data are computer software the Government shall acquire a copyright license as set forth in subparagraph (g)(3) of this clause if included in this contract or as otherwise may be provided in a collateral agreement incorporated in or made part of this contract.
 - (3) Removal of copyright notices. The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.
- (d) Release, publication and use of data.
- (1) The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.
 - (2) The Contractor agrees that to the extent it receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.
 - (3) The Contractor agrees not to assert copyright in computer software first produced in the performance of this contract without prior written permission of the DOE Patent Counsel assisting the contracting activity. When such permission is granted, the Patent Counsel shall specify appropriate terms, conditions, and submission requirements to assure utilization, dissemination, and commercialization of the data. The Contractor, when requested, shall promptly deliver to Patent Counsel a duly executed and approved instrument fully confirmatory of all rights to which the Government is entitled.
- (e) Unauthorized marking of data.
- (1) Notwithstanding any other provisions of this contract concerning inspection or acceptance, if any data delivered under this contract are marked with the notices specified in subparagraph (g)(2) or (g)(3) of this clause and use of such is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.
 - (i) The Contracting Officer shall make written inquiry to the Contractor affording the Contractor 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

- (ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.
 - (iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be canceled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.
 - (2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.
 - (3) This paragraph (e) does not apply if this contract is for a major system or for support of a major system by a civilian agency other than NASA and the U.S. Coast Guard agency subject to the provisions of Title III of the Federal Property and Administrative Services Act of 1949.
 - (4) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by this paragraph (e) from bringing a claim under the Contract Disputes Act, including pursuant to the Disputes clause of this contract, as applicable, that may arise as the result of the Government removing or ignoring authorized markings on data delivered under this contract.
- (f) Omitted or incorrect markings.
- (1) Data delivered to the Government without either the limited rights or restricted rights notice as authorized by paragraph (g) of this clause, or the copyright notice required by paragraph (c) of this clause, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor -
 - (i) Identifies the data to which the omitted notice is to be applied;
 - (ii) Demonstrates that the omission of the notice was inadvertent;
 - (iii) Establishes that the use of the proposed notice is authorized; and

- (iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.
- (2) The Contracting Officer may also (i) permit correction at the Contractor's expense of incorrect notices if the Contractor identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized, or (ii) correct any incorrect notices.
- (g) Protection of limited rights data and restricted computer software.
 - (1) When data other than that listed in subdivisions (b)(1)(i), (ii), and (iii) of this clause are specified to be delivered under this contract and qualify as either limited rights data or restricted computer software, if the Contractor desires to continue protection of such data, the Contractor shall withhold such data and not furnish them to the Government under this contract. As a condition to this withholding, the Contractor shall identify the data being withheld and furnish form, fit, and function data in lieu thereof. Limited rights data that are formatted as a computer data base for delivery to the Government are to be treated as limited rights data and not restricted computer software.
 - (2) (Reserved)
 - (3) (Reserved)
- (h) Subcontracting. The Contractor has the responsibility to obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subcontract award without further authorization.
- (i) Relationship to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.
- (j) The Contractor agrees, except as may be otherwise specified in this contract for specific data items listed as not subject to this paragraph, that the Contracting Officer or an authorized representative may, up to three years after acceptance of all items to be delivered under this contract, inspect at the Contractor's facility any data withheld pursuant to paragraph (g)(1) of this clause, for purposes of verifying the Contractor's assertion pertaining to the limited rights or restricted rights status of the data or for evaluating work performance. Where the Contractor whose data are to be inspected demonstrates to the Contracting Officer that there would be a possible conflict of interest if the inspection were made by a particular representative, the Contracting Officer shall designate an alternate inspector.

3.15 52.227-14 RIGHTS IN DATA - GENERAL. (JUN 1987) -- ALTERNATE II (JUN 1987)

(Insert the following paragraph (g)(2) if it is necessary to obtain the delivery of limited rights data:)

- (2) Notwithstanding subparagraph (g)(1) of this clause, the contract may identify and specify the delivery of limited rights data, or the Contracting Officer may require by written request the delivery of limited rights data that has been withheld or would otherwise be withholdable. If delivery of such data is so required, the Contractor may affix the following "Limited Rights Notice" to the data and the Government will thereafter treat the data, subject to the provisions of paragraphs (e) and (f) of this clause, in accordance with such Notice:

LIMITED RIGHTS NOTICE (JUN 1987)

- (a) These data are submitted with limited rights under Government Contract No. _____ (and subcontract _____, if appropriate). These data may be reproduced and used by the Government with the express limitation that they will not, without written permission of the Contractor, be used for purposes of manufacture nor disclosed outside the Government; except that the Government may disclose these data outside the Government for the following purposes, if any; provided that the Government makes such disclosure subject to prohibition against further use and disclosure: [Agencies may list additional purposes as set forth in 27.404(d)(1) or if none, so state.]
- (b) This Notice shall be marked on any reproduction of these data, in whole or in part.

(End of notice)

3.16 FAR 52.227-14 RIGHTS IN DATA - GENERAL. (JUN 1987) -- ALTERNATE III (JUN 1987)

[Insert the following paragraph (g)(3) if it is necessary to obtain the delivery of restricted computer software:]

- (3)(i) Notwithstanding subparagraph (g)(1) of this clause, the contract may identify and specify the delivery of restricted computer software, or the Contracting Officer may require by written request the delivery of restricted computer software that has been withheld or would otherwise be withholdable. If delivery of such computer software is so required, the Contractor may affix the following "Restricted Rights Notice" to the computer software and the Government will thereafter treat the computer software, subject to paragraphs (e) and (f) of this clause, in accordance with the Notice

RESTRICTED RIGHTS NOTICE (JUN 1987)

- (a) This computer software is submitted with restricted rights under Government Contract No. [] (and subcontract [], if appropriate). It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this Notice or as otherwise expressly stated in the contract.
- (b) This computer software may be -
- (1) Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;
 - (2) Used or copied for use in a backup computer if any computer for which it was acquired is inoperative;
 - (3) Reproduced for safekeeping (archives) or backup purposes;
 - (4) Modified, adapted, or combined with other computer software, provided that the modified, combined, or adapted portions of the derivative software incorporating restricted computer software are made subject to the same restricted rights;
 - (5) Disclosed to and reproduced for use by support service Contractors in accordance with subparagraphs (b)(1) through (4) of this clause, provided the Government makes such disclosure or reproduction subject to these restricted rights; and

- (6) Used or copied for use in or transferred to a replacement computer.
- (c) Notwithstanding the foregoing, if this computer software is published copyrighted computer software, it is licensed to the Government, without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of this clause.
- (d) Any other rights or limitations regarding the use, duplication, or disclosure of this computer software are to be expressly stated in, or incorporated in, the contract.
- (e) This Notice shall be marked on any reproduction of this computer software, in whole or in part.

(End of notice)

- (ii) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used in lieu thereof:

RESTRICTED RIGHTS NOTICE SHORT FORM (JUN 1987)

Use, reproduction, or disclosure is subject to restrictions set forth in Contract No. [] (and subcontract, if appropriate) with [] (name of Contractor and subcontractor).

(End of notice)

- (iii) If restricted computer software is delivered with the copyright notice of 17 U.S.C. 401, it will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of this clause, unless the Contractor includes the following statement with such copyright notice: "Unpublished - rights reserved under the Copyright Laws of the United States."

3.17 FAR 52.227-14 RIGHTS IN DATA - GENERAL. (JUN 1987) -- ALTERNATE IV (JUN 1987)

[Substitute paragraph (c)(1) in contracts for basic and applied research to be performed solely by universities and colleges.]

- (c) Copyright.
 - (1) Data first produced in the performance of the contract. Except as otherwise specifically provided in this contract, the Contractor may establish claim to copyright subsisting in any data first produced in the performance of this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For data other than computer software, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable, worldwide license for all such data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license for all such computer software to reproduce, prepare derivative works, and perform publicly and display publicly, by or on behalf of the Government.

3.18 52.227-16 ADDITIONAL DATA REQUIREMENTS. (JUN 1987)

- (a) In addition to the data (as defined in the clause at 52.227-14, Rights in Data - General clause or other equivalent included in this contract) specified elsewhere in this contract to be delivered, the Contracting Officer may, at any time during contract performance or within a period of 3 years after acceptance of all items to be delivered under this contract, order any data first produced or specifically used in the performance of this contract.
- (b) The Rights in Data - General clause or other equivalent included in this contract is applicable to all data ordered under this Additional Data Requirements clause. Nothing contained in this clause shall require the Contractor to deliver any data the withholding of which is authorized by the Rights in Data - General or other equivalent clause of this contract, or data which are specifically identified in this contract as not subject to this clause.
- (c) When data are to be delivered under this clause, the Contractor will be compensated for converting the data into the prescribed form, for reproduction, and for delivery.
- (d) The Contracting Officer may release the Contractor from the requirements of this clause for specifically identified data items at any time during the 3-year period set forth in paragraph (a) of this clause.

3.20 52.227-23 RIGHTS TO PROPOSAL DATA (TECHNICAL). (JUN 1987)

Except for data contained on pages [], it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data - General" clause contained in this contract) in and to the technical data contained in the proposal dated [], upon which this contract is based.

SECTION IV - LIST OF ATTACHMENTS

4.1 LIST OF ATTACHMENTS (JAN 1999)

Attachment A -- Statement of Project Objectives

Attachment B -- Federal Assistance Reporting Checklist

Attachment C -- Budget Page(s)

Attachment [] -- Recipient Acquired Property

Attachment [] -- Federally Owned Property -- Government Furnished

4.2 ATTACHMENT A -- STATEMENT OF PROJECT OBJECTIVES (JAN 1999)

THE STATEMENT OF PROJECT OBJECTIVES WILL BE INSERTED HERE.

NETL F 540.3-1#
(5/2001) OPI=PS10
(Previous Editions Obsolete)

FEDERAL ASSISTANCE REPORTING CHECKLIST

1. Awardee:	2. Identification Number:																																													
3. Report Submission Address: <i>The requested quantity of all required report deliverables shall be submitted to the following address:</i> <p style="text-align: center;"> NETL AAD DOCUMENT CONTROL BLDG. 921 U.S. DEPARTMENT OF ENERGY NATIONAL ENERGY TECHNOLOGY LABORATORY P.O. BOX 10940 PITTSBURGH, PA 15236-0940 </p>																																														
4. Planning and Reporting Requirements:																																														
A. PROGRAM/PROJECT MANAGEMENT <input type="checkbox"/> Federal Assistance Milestone Plan <input type="checkbox"/> Milestone Log <input type="checkbox"/> Federal Assistance Management Summary Report <input type="checkbox"/> Federal Assistance Program/Project Status Report <input checked="" type="checkbox"/> Financial Status Report <input type="checkbox"/> Federal Cash Transaction Report B. TECHNICAL (One paper copy and one PDF electronic file copy) <input type="checkbox"/> Technical Progress Report <input checked="" type="checkbox"/> Topical Report <input checked="" type="checkbox"/> Final Report C. ENVIRONMENTAL <input checked="" type="checkbox"/> Hazardous Substance Plan <input checked="" type="checkbox"/> Hazardous Waste Report <input type="checkbox"/> Environmental Compliance Plan <input type="checkbox"/> Environmental Monitoring Plan <input type="checkbox"/> Environmental Status Report D. PROPERTY <input type="checkbox"/> Annual Report of Property in the Custody of Contractors <input type="checkbox"/> High Risk Property Report <input checked="" type="checkbox"/> Report of Termination or Completion Inventory E. EXCEPTION <input type="checkbox"/> Conference Record <input checked="" type="checkbox"/> Hot Line Report <input checked="" type="checkbox"/> Journal Articles/Conference Papers and Proceedings <input type="checkbox"/> Software <input type="checkbox"/> Other _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">FORM NO.</th> <th style="text-align: center;">FREQ.</th> <th style="text-align: center;">NUMBER OF COPIES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">DOE F 4600.3 DOE F 4600.3A DOE F 4600.5 DOE F 4600.6 SF-269 or SF-269A SF-272</td> <td style="text-align: center;">Q</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">None</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">None</td> <td style="text-align: center;">A</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">None</td> <td style="text-align: center;">FG</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">None</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">None</td> <td style="text-align: center;">0</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">None</td> <td style="text-align: center;">FC</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">None</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">None</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">None</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">F 580.1-8 F 580.1-25 NETL F 580.1-9 and SF-120</td> <td style="text-align: center;">FC</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">None</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">None</td> <td style="text-align: center;">A</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">None</td> <td style="text-align: center;">A</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>	FORM NO.	FREQ.	NUMBER OF COPIES	DOE F 4600.3 DOE F 4600.3A DOE F 4600.5 DOE F 4600.6 SF-269 or SF-269A SF-272	Q	3	None			None	A	2	None	FG	2	None			None	0	3	None	FC	3	None			None			None			F 580.1-8 F 580.1-25 NETL F 580.1-9 and SF-120	FC	1	None			None	A	2	None	A	2
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5. FREQUENCY CODES AND DUE DATES: A - As required; see attached text for applicability. C - Change/revision, within 15 calendar days after event. FG - Final; within ninety (90) calendar days after the project period ends. FC - Final - End of Effort. M - Monthly; within twenty-five (25) calendar days after end of the report period. O - Once after award; within thirty (30) calendar days after award. Q - Quarterly; within thirty (30) calendar days after end of the calendar quarter or portion thereof. S - Semiannually; within thirty (30) calendar days after end of project year and project half-year. YF - Yearly; 90 calendar days after the end of project year. YP - Yearly Property - due 15 days after period ending 9/30.																																														
6. SPECIAL INSTRUCTIONS: The forms identified in the checklist are available at http://www.netl.doe.gov/business/faapiaf/paaforms.html . Alternate formats are acceptable provided the contents remain consistent with the form. All technical reports submitted to the DOE must be accompanied by a completed and signed NETL F 510.1-5 addressing patent information.																																														

THE REPORTING REQUIREMENTS CHECKLIST ABOVE CONTAINS THE MINIMUM REQUIREMENTS UNDER THE AWARD. THE NEED FOR THE OTHER REPORTS WILL BE SPECIFIED IN THE SOLICITATION. THE FOLLOWING CLAUSES CORRESPOND WITH THE CLAUSES SPECIFIED ABOVE AND WILL BE INCLUDED IF REQUIRED UNDER THE AWARD.

4.4 GENERAL INSTRUCTIONS FOR THE PREPARATION AND SUBMISSION OF REPORTS (MAY 1999)

The Recipient shall prepare and submit (postage prepaid) the plans and reports indicated on the "Federal Assistance Reporting Checklist" to the addressee identified on the checklist. The level of detail the Recipient provides in the plans and reports shall be commensurate with the scope and complexity of the effort and shall be as delineated in the guidelines and instructions contained herein. The prime Recipient shall be responsible for acquiring data from any contractors or subrecipients to ensure that data submitted are compatible with the data elements which prime Recipients are required to submit to DOE.

4.5 FEDERAL ASSISTANCE MILESTONE PLAN (DOE F 4600.3) AND MILESTONE LOG (DOE F 4600.3A) (MAY 1999)

The milestone plan is used as a planning tool, establishing the time schedule for accomplishing the planned work. Usually, it is accompanied by the DOE F 4600.3A, "Milestone Log." The Milestone Plan portrays the major milestones of the project in bar chart format. The purpose of the plan is to establish the Recipient's time schedule for accomplishing planned events and milestones. It covers the life of the project and is to be organized by major project activities, such as those performed at work breakdown structure Level 2. Intermediate events and critical milestones are further identified in an attached "milestone log" and include the identification number, descriptive name of the event or milestone, and the scheduled date of completion.

4.6 FEDERAL ASSISTANCE MANAGEMENT SUMMARY REPORT (DOE F 4600.5) (MAY 1999)

This report is a graphic presentation of costs and milestone status that provides rapid visual analysis and trend forecasting. The funding levels should represent all available resources. The Recipient provides summary cumulative cost and activity data for each reporting period. (Refer to the back of the form for more detailed instructions.)

4.7 FEDERAL ASSISTANCE PROGRAM/PROJECT STATUS REPORT (FORM 4600.6) (MAY 1999)

This report is a concise narrative describing the current status of the effort. The report allows Recipients to communicate developments, achievements, changes and problems. The award Recipient enters a brief narrative discussion of the following topics: approach changes; performance variances, accomplishments, or problems; open times; and status assessment and forecast. Each of these topics is addressed, as appropriate, for a given reporting period and the report is submitted periodically, as required, during the life of the project.

4.8 FINANCIAL STATUS REPORT (STANDARD FORM 269 OR 269A) (MAY 1999)

This report is used for the Recipient to provide regular periodic accounting of project funds expended. The accounting may be on either a cash or accrual basis. Actual total expenditures and obligations incurred, but not paid, are reported for each reporting period for each major activity. They should correlate with those identified on the "Federal Assistance Milestone Plan" when the "Federal Assistance Milestone Plan" is required. Provision is made to identify the Federal and non-Federal share of project outlays for each identified activity.

4.9 REPORT OF FEDERAL CASH TRANSACTIONS (STANDARD FORM 272) (MAY 1999)

This report is used by DOE to monitor cash advanced to Recipients and to obtain disbursement information. The content of the report is prescribed in 10 CFR 600.152 for Institutions of higher Education, Hospitals, Other Non-Profit Organizations and Commercial Organizations or 10 CFR 600.241 for States and Local Governments.

4.10 TECHNICAL REPORTS (SEPT 2000)

CAUTION: Technical reports SHALL NOT include Limited Rights Data (such as restricted, proprietary or business sensitive information). Limited Rights Data shall be submitted in a separate appendix to the technical report. This appendix SHALL NOT be submitted in an electronic format but rather submitted in ONE ORIGINAL AND THREE (3) PAPER COPIES along with the paper version of the sanitized technical report deliverable. The appendix shall be referenced in, but not incorporated into, the sanitized technical report deliverable under the contract. In accordance with FAR 52.227-14, Rights in Data-General, the appendix must be appropriately marked and identified.

Further, if this award authorizes the awardee under the provisions of The Energy Policy Act of 1992 to request protection from public disclosure for a limited period of time of certain information developed under this award, technical reports SHALL NOT contain such Protected EPAct Information. Such information shall be submitted in a separate appendix to the technical report that is suitable for release after the agreed upon period of protection from public disclosure has expired. The appendix shall be referenced in, but not incorporated into, the sanitized technical report deliverable under the contract. In accordance with the clause titled "Obligations as to Protected Energy Policy Act (EPAct) Information," the appendix must be appropriately marked and identified.

All TECHNICAL REPORTS submitted to the DOE MUST be accompanied by a completed and signed NETL F 510.1-5, addressing potentially patentable information.

4.11 TECHNICAL PROGRESS REPORT (ANNUAL, QUARTERLY, AND SEMI-ANNUAL) (MAY 1999)

The body of the report should contain a full account of progress, problems encountered, plans for the next reporting period, and an assessment of the prospects for future progress.

The Technical Progress Report should include sufficient detail to allow the work to be reproduced by others. Results and reduced data shall be presented together with a discussion of the relevance of the findings. When experimental systems and/or procedures are being utilized for the first time, they shall be described in detail. This description shall contain detailed information on equipment and procedures utilized, as well as providing a rationale for their use. All data reduction and transformation methods shall be fully documented. For every fourth calendar quarter for quarterly reports or every second half year for semi-annual reports, the report should be expanded to provide for detailed information on the results of the past year, problems encountered, significant accomplishments, listing of publications, presentations, and approaches to be taken the following year.

Informational items in technical progress reports shall include:

Experimental Apparatus -- A comprehensive description, including dimensioned drawings or sketches, of the apparatus and associated diagnostic measurement equipment employed to perform the experimental research.

Experimental and Operating Data -- All experimental data acquired during the course of research including detailed characterization of the sample materials subjected to experimentation.

Data Reduction -- A complete description of the methods employed to transform raw measured data into a form usable for interpretation along with any assumptions or restrictions inherent in the method and the resultant reduced data.

Hypothesis and Conclusions -- Logic for drawing conclusions or developing hypotheses shall be clearly stated along with applicable assumptions or restrictions.

4.12 TOPICAL REPORT (MAY 1999)

These reports usually provide a comprehensive statement of the technical results of the work performed for a specific task or subtask of the Statement of Project Objectives, or detail significant new scientific or technical advances. If required, DOE shall review and approve the report outline prior to submission of the report.

4.13 FINAL TECHNICAL REPORT (AUG 2000)

The Final Report shall document and summarize all work performed during the award period in a comprehensive manner. It shall also present findings and/or conclusions produced as a consequence of this work. This report shall not merely be a compilation of information contained in subsequent quarterly, or other technical reports, but shall present that information in an integrated fashion, and shall be augmented with findings and conclusions drawn from the research as a whole.

4.14 SOFTWARE (MAY 1999)

Major pieces of computer software developed largely as a result of the performance of this effort shall be delivered to the Government shortly after development or at the completion of the effort, as appropriate. The software shall be delivered together with sufficient documentation concerning its development and use to permit future use by others, and to provide a firm basis for allowing modifications to be made in any subsequent development efforts. Unless otherwise specified, software shall be written in a standard computer language such as Fortran 77, operate on the VAS VMS version 5.1 operating system or an IBM PC-compatible personal computer running MS/DOS, and should not incorporate or be dependent on the use of proprietary software.

4.15 GUIDELINES FOR ORGANIZATION OF TECHNICAL REPORTS (DEC 1999)

The following sections should be included (as appropriate) in technical reports in the sequence shown. Any section denoted by an asterisk is required in all technical reports.

TITLE PAGE* - The Title Page of the report itself must contain the following information in the following sequence:

Report Title
Type of Report (Quarterly, Semi-Annual, Annual, Topical, Final)
Reporting Period Start Date
Reporting Period End Date
Principal Author(s)
Date Report was Issued (Month [spelled out] and Year [4 digits])
DOE Award Number (e.g., DE-FG26-99NT12345) and if appropriate, task number
Name and Address of Submitting Organization (This section should also contain the name and address of significant subcontractors or subrecipients who participated in the production of the report.)

DISCLAIMER* -- The Disclaimer must follow the title page, and must contain the following paragraph:

“This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or

any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.”

ABSTRACT* - should be a brief, concise summary of the report.

TABLE OF CONTENTS*

LIST(S) OF GRAPHICAL MATERIALS

INTRODUCTION

EXECUTIVE SUMMARY - this should be a well organized summary that highlights the important accomplishments of the research during the reporting period. It should be no less than one page and no more than two pages in length, and should be single spaced. This summary must be more comprehensive than the traditional “abstract.”

EXPERIMENTAL* - this should describe, or reference all experimental methods being used for the research. It should also provide detail about materials and equipment being used. Standard methods can be referenced to the appropriate literature, where details can be obtained. Equipment should be described only if it is not standard, or if information is not available thru the literature or other reference publications.

RESULTS AND DISCUSSION* - It is extremely important that this section includes enough relevant data, especially statistical data, to allow the project manager to justify the conclusions. With the relevant data, explain how the data was interpreted and how it relates to the original purpose of the research. Be concise in the discussion on how this research effort solved or contributed to solving the original problem.

CONCLUSION* - The conclusion should not simply reiterate what was already included in the “Results and Discussion” section. It should, however, summarize what has already been presented, and include any logical implications of how the successes are relevant to technology development in the future. This is extremely important, since “relevancy” continues to be a criteria of the program.

REFERENCES*

BIBLIOGRAPHY

LIST OF ACRONYMS AND ABBREVIATIONS

APPENDICES (IF NECESSARY)

Company Names and Logos -- Except as indicated above, company names, logos, or similar material should not be incorporated into reports.

Copyrighted Material -- Copyrighted material should not be submitted as part of a report unless written authorization to use such material is received from the copyright owner and is submitted to DOE with the report.

Measurement Units -- All reports to be delivered under this instrument shall use the SI Metric System of Units as the primary units of measure. When reporting units in all reports, primary SI units shall be followed by their U.S. Customary Equivalents in parentheses ().

The Recipient shall insert the text of this clause, including this paragraph, in all subcontracts under this award.

Note: SI is an abbreviation for "Le Systeme International d'Unites."

4.16 ELECTRONIC MEDIA STANDARD FOR PREPARATION OF TECHNICAL REPORTS (DEC 1999)

FILE FORMAT

Production of high-quality, electronic documents is dependent on the quality of the input that is provided. Thus, the Recipient shall submit one good quality paper copy using either permanent or alkaline paper plus an electronic version of each technical report.

ELECTRONIC REPORTS SHALL BE SUBMITTED IN THE ADOBE ACROBAT PORTABLE DOCUMENT FORMAT (PDF). ELECTRONIC REPORTS SUBMITTED IN A FORMAT OTHER THAN ADOBE WILL BE RETURNED AND THE REPORT CONSIDERED DELINQUENT.

Each report shall be an integrated file that contains all text, tables, diagrams, photographs, schematics, graphs, and charts.

SUBMISSION FORMAT

The electronic file(s) shall be submitted via diskette or CD-ROM. Diskettes or CD-ROMs must be labeled as follows:

DOE Award Number
Type/Frequency of Report(s)
Reporting Period (if applicable)
Name of submitting organization
Name, phone number and fax number of preparer

Diskettes -- Diskettes must be 3.5" double-sided, high-density (1.4 M Byte capacity). If file compression software is used to transmit a PDF file spanning more than one diskette, PKZIP from PKWare, Inc., is the required compression software. State the number of diskettes in the set (e.g., 1/3)

CD-ROM -- The electronic file(s) may be submitted on an ISO9660-format CD-ROM.

FILE NAMING

In naming the electronic file, the Recipient shall use the standard eight-character naming convention for the main file name, and the three character extension applicable to the software use, e.g., .pdf for Adobe.

For the main file name, the first five characters are the last five digits from the award number; e.g., for Award Number DE-FG26-97NT12345, the first five characters are 12345.

The next character represents the technical report and will always be designated as "R".

The remaining two characters indicate the chronological number of the particular type of report; e.g., Quarterly Technical Progress Reports for a 5-year award are numbered R01 through R20. Thus, the main file name for the sixth Quarterly Technical Progress Report under Award No. DE-FG26-99NT12345 would be 12345R06.PDF. If monthly, quarterly, annual, and a final technical report are required, the numbers would run from R01 through R86 (60 monthly reports, 20 quarterly reports, 5 annual reports, and 1 final report).

4.17 ENVIRONMENTAL (OCT 2000)

In response, in part, to the requirements of the National Environmental Policy Act of 1969 (NEPA) and other related environmental statutes, the National Energy Technology Laboratory (NETL) requires the submission of various documents that assess the environmental aspects and projected impacts of all of its proposed actions. These documents may include the following: (1) Hazardous Substance Plan, (2) Hazardous Waste Report, (3) Environmental Compliance Plan, (4) Environmental Monitoring Plan, and (5) Environmental Status Reports.

The environmental information provided in these documents will enable NETL to fulfill its responsibilities under NEPA (additional information about the requirements of the National Environmental Policy Act can be found in the DOE NEPA Compliance Guide and 10 CFR 1021) and to monitor the Recipient's compliance with other environmental regulations. The implementation of any task associated with a proposed action will be dependent upon DOE completing necessary NEPA documentation. Therefore, to minimize the risk of project delays, it is imperative that these reports be submitted in a timely manner.

The information contained herein specifies the basic environmental requirements for this award, but it is not to be interpreted as containing all necessary information for any given project. Likewise, certain aspects of the requirements may not be applicable. Accordingly, the level of information provided should be sufficient for DOE to assess the environmental implications of the proposed action.

4.18 HAZARDOUS SUBSTANCE PLAN (MAY 1999)

The Recipient shall submit a Hazardous Substance Plan not later than thirty (30) days after initial award. The Plan shall specifically identify each Hazardous Substance (as defined under 40 CFR 261, Subpart D, entitled "Lists of Hazardous Wastes") anticipated to be purchased, utilized or generated in the performance of this award. For each such Hazardous Substance identified, the Plan shall specifically provide the following information:

- Description of Substance/Chemical
- EPA Hazardous Waste Number
- EPA Hazard Code
- Anticipated Quantity to be purchased, utilized or generated
- Anticipated Hazardous Waste Transporter
- Anticipated Hazardous Waste Disposal Facility Contractor and Location (City/Municipality, State)
- Anticipated Treatment Method

4.19 HAZARDOUS WASTE REPORT (MAY 1999)

The Recipient shall submit a Hazardous Waste Report at the completion of award performance. The Report shall specifically identify each Hazardous Waste (as defined under 40 CFR 261, Subpart D, entitled "Lists of Hazardous Wastes") actually utilized, or generated in the performance of this award. For each such Hazardous Waste identified, the Report shall specifically provide the following information:

- Description of Substance/Chemical
- EPA Hazardous Waste Number
- EPA Hazard Code
- Actual Quantity Disposed
- Actual Hazardous Waste Transporter
- Actual Hazardous Waste Disposal Facility Contractor and Location (City/Municipality, State)
- Actual Disposal Date
- Actual Treatment Method

The Hazardous Waste Report is intended as a final reconciliation of anticipated versus actual Hazardous Substances purchased, utilized, or generated in the performance of this award.

4.20 ENVIRONMENTAL COMPLIANCE PLAN (DEC 1999)

The Environmental Compliance Plan (ECP) shall be submitted within thirty (30) days of award and should outline an approach to implementing an environmental monitoring and reporting strategy. This strategy should include plans for submitting a Quality Assurance/Quality Control Plan and Pollution Prevention Plan (if an ECP is required, the format of the QA/QC Plan and Pollution Prevention Act will be determined in conjunction with the NETL environmental staff), conducting environmental monitoring of the proposed action and submitting Environmental Status Reports. The ECP should also address any concerns and/or deviations associated with the reporting and monitoring documents.

SUGGESTED FORMAT FOR ENVIRONMENTAL COMPLIANCE PLAN (ECP):

- I. SUMMARY OF PROPOSED PROJECT
- II. FEDERAL REGULATORY COMPLIANCE (Discuss how each of the following will be complied with, if applicable.)
 - A. National Historic Preservation Act
 - B. Endangered Species Act
 - C. Fish and Wildlife Coordination Act
 - D. Floodplain/Wetlands Regulations
 - E. Coastal Zone Management Act
 - F. Farmland Protection Policy Act
 - G. American Indian Religious Freedom Act
 - H. Wild and Scenic Rivers Act
 - I. Resource Conservation & Recovery Act
 - J. Comprehensive Environmental Response, Compensation and Liability Act
 - K. Clean Air Act
 - L. Clean Water Act
 - M. Pollution Prevention Act
- III. STATE AND LOCAL REGULATORY COMPLIANCE (Discuss how any state and local regulations will be complied with.)

4.21 ENVIRONMENTAL MONITORING PLAN (MAY 1999)

IF DOE's analysis of the potential environmental impacts of the proposed action identifies a need for environmental monitoring, the Recipient will also submit a draft Environmental Monitoring Plan (EMP) within thirty (30) days of award. After consultation with DOE, the draft EMP will be revised, as necessary, and a final EMP will be prepared. The EMP may be revised as the project dictates.

The EMP should evaluate air, land, and water resources, and waste production, using three specific types of monitoring:

- A. Compliance Monitoring,
- B. Unregulated Pollutant Monitoring, and, if necessary,
- C. NEPA-related Monitoring.

Compliance monitoring, i.e., environmental and health monitoring required by Federal, State, and local regulatory agencies, should detail the location, frequency, duration, and substances being monitored. All necessary applications, permits, and licenses should be identified.

Unregulated pollutants, both the amount and type of each, should be monitored. This includes those pollutants (a) not currently regulated by State or Federal laws but for which new regulations are expected in the near future; (b) which may cause environmental or health concerns based on hazardous/toxic compound lists; and (c) which are expected in discharge streams based on test data or process chemistry.

Finally, NEPA-related monitoring should be implemented as necessary. It should identify and/or confirm the impacts of the substances produced and performance of the specific technologies as predicted in the NEPA document. It should also include reporting on any mitigation action identified in the Finding of No Significant Impact or Record of Decision as a condition of approval of the proposed action (reported annually).

4.22 ENVIRONMENTAL STATUS REPORT (MAY 1999)

After approval of the comprehensive EMP, and as deemed necessary by the DOE Project Manager, information from environmental monitoring should be submitted in the form of Environmental Status Reports (ESRs). The necessity of these reports will depend on the size and nature of the project; they will be required quarterly.

The data reported in the ESRs will ensure that project impacts (a) do not violate applicable environmental regulations and (b) are not detrimental to human health or the environment. The information will also provide a database that can be utilized to mitigate environmental problems associated with commercializing any proposed technologies.

SUGGESTED FORMAT FOR ENVIRONMENTAL STATUS REPORTS

I. SUMMARY OF MONITORING PERFORMED (Compliance and Supplemental Monitoring)

A. MONITORING PARAMETERS

1. Location
2. Stage of Project (e.g., preconstruction, operational, etc.)
3. Source to be Monitored (e.g., stack emissions)
4. Method of Monitoring

B. DATA ANALYSIS

1. Identification/characterization of emissions, effluents, etc. and their concentration
2. Identification of problem areas/non-compliance
3. Suggestions for modifications/changes to the system
4. Recommendations to revise Monitoring Plan

II. PERMIT COMPLIANCE STATUS

- A. Attach copies of compliance reports, analyses, correspondence between the Recipient and the appropriate regulatory agencies.
- B. Attach copies of all manifests, shipping documents, etc. pertaining to the disposal of wastes generated from the project.

4.23 PROPERTY REPORTS (DEC 1999)

The NETL Property Handbook entitled "Management of Government Property in the Possession of Contractors," contains forms, instructions, and suggested formats for submission of property reports. This handbook can be found at <http://www.netl.doe.gov/business/index.html>.

4.24 ANNUAL REPORT OF PROPERTY IN THE CUSTODY OF CONTRACTORS (NETL F 580.1-8) (DEC 1999)

This report includes ALL Government-owned and Government-furnished property and materials for which the Recipient is accountable to the Government. This report shall also include Government Property at subcontractor's plants and alternate locations. This report is submitted on NETL F 580.1-8 for the period ending September 30 and is due by October 15.

4.25 REPORT OF TERMINATION OR COMPLETION INVENTORY (NETL F 580.1-9 AND SF-120) (SEPT 2000)

This report submitted on the NETL F 580.1-9 is due immediately upon completion or termination of the award. The SF-120 is also required if there is Government-furnished property involved. The Recipient is required to perform and cause each subcontractor to perform a physical inventory, adequate for disposal purposes, of all Government property applicable to the award.

4.26 HIGH RISK PROPERTY REPORT (NETL F 580.1-25) (SEPT 2000)

Some property, because of its peculiar nature, its potential impact on public health and safety, on the environment, on security interests, or on proliferation concerns, must be handled, controlled, cleared and disposed of in other than the standard manner. High-risk property includes property which is: 1) nuclear-related; 2) proliferation-sensitive or export controlled; 3) chemically, biologically, or radiologically contaminated; 4) national security/military interests; and 5) hazardous materials and wastes. Further definitions of high-risk property can be found at <http://www.pr.doe.gov/ppl.html>. This report is required by the DOE for the control (acquisition, management and disposal) of high risk property to ensure that such disposition does not adversely affect public safety and/or the environment, national security, or nuclear nonproliferation objectives of the United States. This report shall be submitted for the period ending September 30 and is due by October 15 of each year.

4.27 CONFERENCE RECORD (MAY 1999)

The "Conference Record" documents for the DOE Contracting Officer's Representative (COR), DOE Contracting Officer, and the Recipient an understanding of significant decisions, direction or redirection, or required actions resulting from meetings with DOE representatives. It is required for any meeting, conference, or phone conversation in which a decision is made that may change the schedule, labor, cost, or technical aspects of the award or the approved baseline plans. The report shall contain the following information as applicable:

1. Report title ("Conference Record"), number, and the date prepared.
2. Award title and number, and the Recipient's name and address.
3. Date of meeting or telephone conversation, with a list of those involved and their titles.
4. Subject(s) discussed, decisions reached, and directions given.
5. Variances from previous directions and conclusions.
6. Required actions.
7. Distribution.
8. Signature of preparer.

4.28 HOT LINE REPORT (NOV 2000)

The "Hot Line Report" may be used to report a major breakthrough in research, development, or design; an event causing a significant schedule slippage or cost growth; an environmental, safety and health violation; achievement of or failure to achieve an important technical objective; or any requirement for quickly documented direction or redirection. The report shall be submitted by the most rapid means available, usually electronic, and should confirm telephone conversations with DOE representatives. Identification as a "Hot Line Report" serves notice at each link in the delivery chain that expedition in handling is required. Unless otherwise agreed by the parties involved, DOE is expected to take action and respond in a similarly timely manner. The report should include:

1. Recipient's name and address;
2. Award title and number;
3. Date;
4. Brief statement of problem or event;
5. Anticipated impacts; and
6. Corrective action taken or recommended.

Hot line reports shall document the incidents listed below:

1. Any single fatality or injuries requiring hospitalization of five or more individuals is to be immediately reported.
2. Any significant environmental permit violation is to be reported as soon as possible, but within 24 hours of the discovery of the incident.
3. Other incidents that have the potential for high visibility in the media are to be reported as quickly as possible, but within 24 hours following discovery.
4. Any failure resulting in damage to Government-owned equipment in excess of \$50,000 is to be reported as quickly as possible, but within 24 hours of the discovery of the failure.
5. Any unplanned event which is anticipated to cause a schedule slippage or cost increase significant to the project is to be reported within 24 hours.
6. Any verbal or written Notice of Violation of any Environmental, Safety, and Health statutes arising from the performance of this award is to be immediately reported.
7. Any accidental spill or release which is in violation of any Environmental, Safety, and Health statutes arising from the performance of this award is to be immediately reported, but within 24 hours of the discovery of the accident.
8. Any incident which causes a significant process or hazard control system failure, or is indicative of one which may lead to any of the above defined incidents, is to be reported as soon as possible, but within 5 days of discovery.

The requirement to submit Hot Line Reports for the incidents identified in 1, 2, 3, 6, or 7 is for the sole purpose of enabling DOE officials to respond to questions relating to such events from the media and other public.

When an incident is reported in accordance with 4, 5, 6, 7, or 8, the Recipient shall conduct an investigation of its cause and make an assessment of the adequacy of resultant action. A written report is required no later than ten (10) calendar days following the incident and shall include an analysis of the pertinent facts regarding the cause, and a schedule of the remedial events and time periods necessary to correct the action.

When an event results in the need to issue a written or verbal statement to the local media, the statement is to be cleared first; if possible, and coordinated with NETL Communications and Public Affairs Division, the Contracting Officer Representative (COR) and the Contracting Officer.

4.29 JOURNAL ARTICLES, CONFERENCE PAPERS AND PROCEEDINGS GENERATED BY LARGE BUSINESSES FOR DOE REVIEW (SEPT 2000)

The Recipient shall submit to DOE for review and approval all documents generated by the Recipient, or any subcontractor, which communicate the results of scientific or technical work supported by DOE under this award, whether or not specifically identified in the award, prior to submission for publication, announcement, or presentation. Such documents include journal articles, conference papers and proceedings, etc. Each such document shall be accompanied by a properly completed NETL Form 510.1-5, "Request for Patent Clearance for Release of Contracted Research Documents."

The Recipient shall simultaneously submit a draft version of the document to the DOE COR and the DOE Patent Counsel Office prior to the publication, presentation, or announcement. The document submitted to the DOE Patent Counsel shall be accompanied by a completed NETL Form 510.1-5. The DOE COR and DOE Patent Counsel shall review the draft version of the document and notify the Recipient of approval or recommended changes. The approved final version shall be submitted to the NETL AAD Document Control Coordinator.

The following information shall be provided for conference papers and proceedings, etc.

- Name of conference
- Location of conference (city, state, and country)
- Date of conference (month/day/year)
- Conference sponsor

4.30 JOURNAL ARTICLES, CONFERENCE PAPERS AND PROCEEDINGS GENERATED BY A SMALL BUSINESS OR NONPROFIT ORGANIZATION FOR DOE REVIEW (SEPT 2000)

The Recipient shall submit to DOE for review and approval all documents generated by the Recipient, or any subcontractor, which communicate the results of scientific or technical work supported by DOE under this award, whether or not specifically identified in the award, prior to submission for publication, announcement, or presentation. Such documents include journal articles, conference papers and proceedings, etc. Each such document shall be accompanied by a properly completed NETL Form 510.1-5, "Request for Patent Clearance for Release of Contracted Research Documents."

The Recipient shall submit a draft version of the document to the COR prior to the publication, presentation, or announcement. The COR shall review the draft version of the document and notify the Recipient of approval or recommended changes. The final version, along with a completed NETL Form 510.1-5, shall be submitted to the NETL AAD Document Control Coordinator.

The following information shall be provided for conference papers and proceedings, etc.

- Name of conference
- Location of conference (city, state, and country)
- Date of conference (month/day/year)
- Conference sponsor

4.31 JOURNAL ARTICLES, CONFERENCE PAPERS AND PROCEEDINGS GENERATED BY A UNIVERSITY FOR DOE REVIEW (SEPT 2000)

The Recipient shall submit to DOE for review and comment all documents generated by the Recipient, or any subcontractor, which communicate the results of scientific or technical work supported by DOE under this award, whether or not specifically identified in the award, prior to submission for publication, announcement, or presentation. Such documents include journal articles, conference papers and proceedings, etc. Each such document shall be accompanied by a properly completed NETL Form 510.1-5, "Request for Patent Clearance for Release of Contracted Research Documents."

The Recipient shall submit a draft version of the document to the COR prior to the publication, presentation, or announcement. The COR shall review the draft version of the document and notify the Recipient of recommended changes. The final version, along with a completed NETL Form 510.1-5, shall be submitted to the NETL AAD Document Control Coordinator.

The following information shall be provided for conference papers and proceedings, etc.

- Name of conference
- Location of conference (city, state, and country)
- Date of conference (month/day/year)
- Conference sponsor

4.32 ATTACHMENT C -- BUDGET PAGES (APR 1999)

THE BUDGET PAGES SUBMITTED WITH THE APPLICANT'S APPLICATION WILL BE INSERTED HERE.

4.33 ATTACHMENT [] -- RECIPIENT ACQUIRED PROPERTY (JAN 1999)

THIS ATTACHMENT WILL BE INCLUDED IF THE RECIPIENT HAS PROPOSED TO ACQUIRE PROPERTY.

EXEMPT

Exempt property which has an acquisition cost less than \$5,000.

EQUIPMENT

Equipment with an acquisition cost greater than \$5,000.

4.34 ATTACHMENT [] -- FEDERALLY OWNED PROPERTY -- GOVERNMENT FURNISHED (JAN 1999)

THIS ATTACHMENT WILL BE INCLUDED IF GOVERNMENT PROPERTY IS TO BE FURNISHED.